

**To:** Orme-Zavaleta, Jennifer[Orme-Zavaleta.Jennifer@epa.gov]; Koglin, Eric[Koglin.Eric@epa.gov]  
**From:** Sayles, Gregory  
**Sent:** Mon 8/17/2015 12:14:50 PM  
**Subject:** RE: EOC Spot Report: Update #8, Region 8, Gold King Mine Release into Animas River; San Juan County, CO

Yes, will try.

**From:** Orme-Zavaleta, Jennifer  
**Sent:** Friday, August 14, 2015 4:58 PM  
**To:** Koglin, Eric; Sayles, Gregory  
**Subject:** FW: EOC Spot Report: Update #8, Region 8, Gold King Mine Release into Animas River; San Juan County, CO

See Kate's note. Can you get us specifics on this?

Sent from my Windows Phone

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**From:** Sullivan, Kate  
**Sent:** 8/14/2015 16:44  
**To:** Orme-Zavaleta, Jennifer  
**Subject:** RE: EOC Spot Report: Update #8, Region 8, Gold King Mine Release into Animas River; San Juan County, CO

From the most recent report you just forwarded:

A pilot test flush of the Animas Consolidate Irrigation Ditch was conducted late in the day on 8/12. The purpose of the test was to visually evaluate sediment transport conditions that would occur upon partially opening the control gate. Ferrous sediments were observed to have been deposited bank to bank in the channel as a result of the mine release.

**Deliberative Process/Ex. 5**

# Deliberative Process/Ex. 5

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[sullivan.kate@epa.gov](mailto:sullivan.kate@epa.gov)

**From:** Orme-Zavaleta, Jennifer

**Sent:** Friday, August 14, 2015 4:39 PM

**To:** Sullivan, Kate; Garland, Jay; Neale, Anne; McDonald, Michael E.; Schumacher, Brian; Watkins, Tim

**Subject:** FW: EOC Spot Report: Update #8, Region 8, Gold King Mine Release into Animas River; San Juan County, CO

Not for distribution outside EPA

Sent from my Windows Phone

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**From:** Sayles, Gregory

**Sent:** 8/14/2015 16:13

**To:** Orme-Zavaleta, Jennifer; Vandenberg, John; Kavlock, Robert

**Subject:** Fwd: EOC Spot Report: Update #8, Region 8, Gold King Mine Release into Animas River; San Juan County, CO

Begin forwarded message:

**From:** "Eoc, Epahq" <Eoc.Epahq@epa.gov>

**Date:** August 14, 2015 at 4:02:06 PM EDT

**To:** "Eoc, Epahq" <Eoc.Epahq@epa.gov>

**Subject:** EOC Spot Report: Update #8, Region 8, Gold King Mine Release into Animas River; San Juan County, CO

**This report is being sent as a bcc to prevent accidental Reply to All messages.**

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**EOC Spot Report: Update #8, Region 8, Gold King Mine Release into Animas River; San Juan County, CO**

US Environmental Protection Agency

Report as of 1600 EDT on 08/14/2015

**Overview:**

On 8/5, an EPA and Colorado State Division of Reclamation Mining and Safety team was working to investigate and address contamination at the abandoned Gold King Mine in San Juan County, CO. This work resulted in a large release of mine wastewater into the upper portions of Cement Creek. Initial estimates indicated that the release was approximately one million gallons that was held behind unconsolidated debris near an abandoned mine portal. The estimate has since been revised to 3 million gallons. There were several workers at the site at the time of the breach and all were unharmed. The release's path flows through three of EPA's regions: Region 8—Colorado, Utah and the Southern Ute Tribe; Region 6--New Mexico; and, Region 9--Navajo Nation. The R6 Mobile Command Post arrived in Farmington, NM on 8/9.

The mine water is being treated in a series of settling ponds constructed near the portal. The treatment appears to be effective. The pH of the water is being raised with the addition of lime and sodium hydroxide solution to facilitate sedimentation of the metals in the ponds and flocculant is being added to increase the amount of sedimentation. The treated water that is being discharged to Cement Creek has a pH of 5.5. Baseline water quality data from the past 17 years has been obtained and will be compared with the new water quality data. EPA is making upgrades to the wastewater treatment system to ensure its continued operation.

The incident caused a spike in concentrations of total and dissolved metals as the contaminated mine water moved downstream. These concentrations began to trend toward pre-event conditions by 8/6. The contaminant plume deposited sediments and EPA is beginning to assess the impacts of the sediment. All municipal drinking water systems along the Animas River in Colorado, New Mexico, and Utah either are using alternate water sources or have enough clean source water stored that they have not had to shut down.

**State, Local and other Federal Agency Actions:** San Juan County officials are engaged in the response activities. State officials are also on scene. Following the release, the Colorado Department of Public Health and the Environment (CDPHE) notified water users downstream so they could take appropriate steps to turn off intakes until the contaminated water passes. The U.S. Geological Survey (USGS) measured increased river flows and provisionally calculated flow volume of approximately 3 million gallons discharged from the Gold King Mine. The La Plata County Sheriff opened the Animas River to recreational use on 8/14 with a health advisory from CDPHE.

On 8/13, New Mexico Environment Department (NMED) announced that they are considering removing

advisories restricting water use in stages. Before NMED lifts the advisories, they would like see at least one more days' worth of validated data. NMED's initial target for lifting advisories is drinking water wells, followed by intakes, then recreational activities, and finally irrigation ditches.

### **EPA Actions:**

*Response Organization:* EPA is integrated in Unified Command in Durango, CO and in three Incident Command Posts (ICPs) in Silverton and Durango, CO, Farmington, NM with a branch Lake Powell (at the Arizona and Utah Border). Unified EPA Area Command has stood up operations out of Durango, CO with representatives from EPA Regions 6, 8 and 9.

A public-facing website has been set up for the response: <http://www2.epa.gov/goldkingmine>. Administrator McCarthy arrived in Durango, CO on 8/12 to tour the Animas River and meet with members of Unified EPA Area Command. On August 13, the Administrator was in Farmington, NM.

A pilot test flush of the Animas Consolidate Irrigation Ditch was conducted late in the day on 8/12. The purpose of the test was to visually evaluate sediment transport conditions that would occur upon partially opening the control gate. Ferrous sediments were observed to have been deposited bank to bank in the channel as a result of the mine release.

*Sampling and Data Review:* The HQ Environmental Unit (EU) continues to assist with data validation. New Mexico Surface Water data were posted to the incident website on 8/13.

A draft sampling plan is being developed to address sampling and analysis of river water, sediment and well water. This plan is being developed jointly by Regions 8, 6 and 9. EPA received comments from NMED regarding the draft Sampling Plan and EPA will evaluate NMED's comments for inclusion in the final version. Sampling will continue throughout the impacted area as well as ahead of the pulse of wastewater to establish baseline water quality. EPA will be jointly evaluating data and information with partners to determine when access to the Animas River will be restored for recreational activities, irrigation and drinking water. EPA, Tribal, State and local officials are coordinating these decisions based on sampling data, risk screening levels and other related factors. The State of Colorado has developed screening levels for agricultural exposure. Based on the data thus far, EPA and ATSDR do not anticipate adverse health effects from exposure to the metals detected in the river water samples from skin contact or incidental (unintentional) ingestion. Similarly, the risk of adverse effects on livestock that may have been exposed to metals detected in river water samples from ingestion or skin contact is low.

Daily residential sampling is occurring. In Region 8, on 8/11, samples from 19 of the 20 planned sediment sampling locations were completed by the EPA sampling teams. No additional sediment samples were taken by the EPA on 8/12/ or 8/13. A system to prioritize and track water well sampling is under development.

- Residential Well Samples Collected as of 8/13: 26 (18 res wells, 1 duplicate, 7 surface water samples)
- Total Residential Well Samples as of 8/13: 110 samples (including QA samples)
- Sediment Samples Collected 8/13: 12 (11 samples, 1 duplicate)
- Total Sediment Samples To Date: 33 (including QA samples)

The CDPHE collected samples from sediment and water from the Animas River north of Durango to south of Durango. The focus was on public assess areas in relation to the ditch flushing.

In Region 6, on 8/13, EPA received validated data for private drinking water. EPA collected forty-two samples from private drinking water well locations on 8/13. On 8/13, EPA received validated data for private drinking water well samples that were taken on 8/10, and preliminary data for private drinking water well samples that were taken on 8/11. EPA collected twenty-nine irrigation ditch sediment samples today. Three of the twenty-nine samples were from critical locations and were couriered to the lab in Albuquerque. EPA will receive preliminary data for these three priority samples on 8/14. EPA will receive preliminary data on the remaining twenty-six samples on 8/15. EPA collected nine surface water and sediment samples on 8/13.

The Region 6 EPA Incident Command Post and NMED Drinking Water Bureau focused efforts on getting water to the Town of Morningstar because their water supply is at critical levels. The Town reported only three to five days of supply remaining. On 8/13, Region 6 made deliveries to 6 agriculture and 3 livestock locations, totaling 298,683 gallons. Since 8/11, 2015, EPA has made deliveries to 13 agriculture and 8 livestock locations, totaling 532,623 gallons. In Region 8, 1,120 cases of bottled water have been purchased to hand out to community.

ORD has assembled a team of experts who have begun efforts to develop a model that predicts the fate and transport of contaminants that have been released from the site into the Animas and San Juan Rivers. The model will focus on contaminants that are present in river sediments.

EPA ERT is on site assisting with immediate water treatment, clearing of irrigation canals, and groundwater assessment. ERT is also assisting with health and environmental data analysis and presentation. After multiple flyovers, ASPECT was demobilized from the response on 8/12.

*Wildlife:* The assessment of impacts to wildlife and fish populations is ongoing. EPA has seen no indication of widespread fish mortality in the Animas or San Juan Rivers. The State will be evaluating those and other ecological impacts with partners as we move forward. EPA is also working with the NM Department of Game Fish and the U.S. Fish and Wildlife Service to investigate reports of impacts to wildlife.

*Claims:* EPA has a claims process for compensating citizens who suffer personal injury or property damage caused by U.S. government actions. The process includes guidance on documentation that may be required to support claims for loss of employment and loss of income, among other claims. Region 8 has had inquiries about such claims from business owners in CO.

See previous reports for past EPA regional and HQ actions.

**Media Interest: High**

<http://nmpoliticalreport.com/10024/what-reporters-on-the-ground-are-hearing-about-animas-river-spill/>

<http://www.washingtontimes.com/news/2015/aug/12/gold-king-mine-spill-democrats-green-activists-scr/>

<http://www.latimes.com/opinion/op-ed/la-oe-0813-reynolds-mining-disaster-20150813-story.html>

<http://www.cnn.com/2015/08/12/opinions/pagel-animas-river-pollution/index.html>

<http://www.csmonitor.com/USA/2015/0812/Mine-waste-in-Animas-and-San-Juan-Rivers-looks-better-for-now-video>

[http://www.bostonherald.com/news\\_opinion/national/2015/08/damages\\_in\\_colorado\\_mine\\_spill](http://www.bostonherald.com/news_opinion/national/2015/08/damages_in_colorado_mine_spill)

**The HQ EOC will continue to monitor and provided updates as needed.**

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